



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/511,654

10/18/2004

Aaron Reel Bouillet

PU020122

2289

24498 7590 11/23/2009
Robert D. Shedd, Patent Operations
THOMSON Licensing LLC
P.O. Box 5312
Princeton, NJ 08543-5312

EXAMINER

WONG, ALLEN C

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

11/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,654	Applicant(s) BOUILLET ET AL.	
	Examiner Allen Wong	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,9-19,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,9-19,21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/10/09 have been fully read and considered but they are not persuasive.

The 35 U.S.C. 101 rejection is withdrawn.

Regarding lines 16-17 and lines 22-25 on page 8, lines 3-4 and lines 22-29 on page 9, and lines 1-3 and lines 7-11 on page 10 of applicant's remarks about claim 1, applicant asserts that Komatsu does not disclose "wherein the second error signal begins at an earlier time than an associated data packet, and wherein the second error signal ends at a later time than the associated data packet", and that the Komatsu reference was misinterpreted. The examiner respectfully disagrees. In figure 12 of Komatsu, Komatsu discloses that after time t, the section d illustrates the phase error is at logical high or at, and that after time t in section b when the clock starts at logical low or zero, the signal in section d is already at logical high, thus, the error signal begins at an earlier time than the associated data packet, and also, in section b, when clock goes from logical high and back to logical low, the error signal of section d is still at logical high, thus, the error signal ends at a later time than the associated data packet. Thus, Komatsu discloses wherein the second error signal begins at an earlier time than an associated data packet, and wherein the second error signal ends at a later time than the associated data packet. As for the "associated data packet", the data signals presented in Komatsu figure 12 is the error signal that can be applied to the art of image processing and compression, in that packetization of image data is processed for

Art Unit: 2621

transmission by compression in MPEG standard, see column 1, lines 5-11 of Komatsu.

Thus, the combination of the references of Yamashita, Boyce and Komatsu is viewed as a whole by one of ordinary skill in the art to ascertain the “wherein the second error signal begins at an earlier time than an associated data packet, and wherein the second error signal ends at a later time than the associated data packet” since clearly Yamashita and Boyce pertain to the same video image processing environment, and thus, the teachings of Yamashita, Boyce and Komatsu can be reasonably combined to ascertain the limitations of claim 1.

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita, Boyce and Komatsu, as a whole, for efficiently encode and decode image data, while maintaining high image quality and minimizing erroneous data output.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have

Art Unit: 2621

suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Claims 2-5, 9 and 10 are rejected for at least similar reasons as stated above for claim 1 and in the rejection below. Independent claims 11, 18 and 22 are rejected for similar reasons as stated above for claim 1 and in the rejection below. Dependent claims 12-17, 19 and 21 are rejected for similar reasons as independent claims 11 and 18.

Thus, the rejection is maintained.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 9-19 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita (5,506,903) and Boyce (6,317,462) in view of Komatsu (6,097,879).

Regarding claim 1, Yamashita discloses an apparatus for processing a received signal containing a datastream containing data packets (col.6, ln.11-14 and fig.2 is an apparatus for processing a received datastream), comprising:

a signal decoder, the signal decoder generating a first error signal in response to indecipherable data received by the decoder (col.6, ln.49-53 and fig.2, element 23 is a

Reed-Solomon decoder that generates a first error signal in response to unscrambled, indecipherable data received by the decoder); and

a transport processor, the transport processor receiving the first error signal, (col.6, ln.54-59, element 24 receives the first error signal produced by element 23 of fig.2).

Yamashita does not specifically disclose the transport processor generating a second error signal after receiving the first error signal. However, Boyce teaches generating the second error signal after receiving the first error signal (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, after the output of the Reed-Solomon decoder 506, ie. first error signal). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Yamashita and Boyce do not disclose wherein the second error signal begins at an earlier time than an associated data packet, and wherein the second error signal ends at a later time than the associated data packet. However, Komatsu teaches wherein the second error signal begins at an earlier time than an associated data packet (fig.12, note after time t, the section d shows that the phase error is at logical high or at, and note that after time t in section b when the clock starts at logical low or zero, the signal in section d is already at logical high, thus, the error signal begins at an earlier time than the associated data packet), and wherein the second error signal ends

Art Unit: 2621

at a later time than the associated data packet (fig.12, note after time t, the section d shows that the phase error is at logical high or at, and note that after time t in section b when the clock starts at logical low or zero, the signal in section d is already at logical high, thus, the error signal begins at an earlier time than the associated data packet, and also, in section b, when clock goes from logical high and back to logical low, the error signal of section d is still at logical high, thus, the error signal ends at a later time than the associated data packet). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita, Boyce and Komatsu, as a whole, for efficiently encode and decode image data, while maintaining high image quality and minimizing erroneous data output.

Regarding claim 2, Yamashita discloses wherein the datastream comprises a modulated signal containing data packets (fig.2, element 20 and col.6, ln.15-18).

Regarding claim 3, Yamashita discloses the transport bus, the transport bus forwarding data packets to subsequent processing stages (col.6, ln.54-59, element 24 receives the first error signal produced by element 23 of fig.2, in that the data must be transported by a transport bus or any bus that permits the transmission of data for transmitting data) and the synchronization signal (col.5, ln.38-45, frame synchronization pattern is within the system data of the received signal for permitting the synchronization of the video and audio data at the decoding end). Yamashita does not disclose the transport processor generating the second error signal in response to receiving the synchronization signal. However, Boyce teaches generating the second error signal in response to the synchronization signal being received by the transport

Art Unit: 2621

processor (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, after the output of the Reed-Solomon decoder 506, ie. first error signal, and the synchronization data that is included when decoding MPEG header data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Regarding claim 4, Yamashita discloses the transport bus (col.6, ln.54-59, element 24 receives the first error signal produced by element 23 of fig.2, in that the data must be transported by a transport bus or any bus that permits the transmission of data for transmitting data). Yamashita does not the second error signal. However, Boyce teaches the forwarding of the second error signal and with the data packets associated with the second error signal (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, after the output of the Reed-Solomon decoder 506, ie. first error signal, and the synchronization data that is included when decoding MPEG header data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Regarding claim 5, Yamashita does not disclose wherein the second error signal is formed as a series of logical high frames, each logical high frame being associated with a data packet. However, Boyce teaches generating the second error signal after

Art Unit: 2621

receiving the first error signal (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, after the output of the Reed-Solomon decoder 506, ie. first error signal). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Regarding claim 9, Yamashita discloses further comprising a demodulator, the demodulator deriving the synchronization signal from the received signal (fig.2, element 20 and col.6, ln.15-18).

Regarding claim 10, Yamashita discloses wherein the transport processor is implemented as a microprocessor (col.6, ln.54-59, element 24 receives the first error signal produced by element 23 of fig.2).

Regarding claim 11, Yamashita discloses a system for generating an error signal based on an error encountered while processing a received signal which includes an image representative datastream containing data packets (col.6, ln.11-14 and fig.2 is an apparatus for processing a received video datastream), comprising:

a forward error detecting and correcting decoder which generates a first error signal (col.6, ln.49-53 and fig.2, element 23 is a forward error detection unit, ie. Reed-Solomon decoder, that generates a first error signal in response to unscrambled, indecipherable data received by the decoder);

a synchronization signal derived from the received signal (col.5, ln.38-45, frame synchronization pattern is within the system data of the received signal for permitting the synchronization of the video and audio data at the decoding end);

a transport processor interconnected to receive the first error signal and the synchronization signal (col.6, ln.54-59, element 24 receives the first error signal produced by element 23 of fig.2).

Yamashita does not specifically disclose the transport processor generating a second error signal in response to the first error signal and the synchronization signal. However, Boyce teaches generating the second error signal after receiving the first error signal and the synchronization signal (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, after the output of the Reed-Solomon decoder 506, ie. first error signal, and the synchronization data that is included when decoding MPEG header data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Yamashita and Boyce do not disclose wherein the second error signal begins at an earlier time than an associated data packet, and wherein the second error signal ends at a later time than the associated data packet. However, Komatsu teaches wherein the second error signal begins at an earlier time than an associated data packet (fig.12, note after time t, the section d shows that the phase error is at logical high or at, and note that after time t in section b when the clock starts at logical low or

Art Unit: 2621

zero, the signal in section d is already at logical high, thus, the error signal begins at an earlier time than the associated data packet), and wherein the second error signal ends at a later time than the associated data packet (fig.12, note after time t, the section d shows that the phase error is at logical high or at, and note that after time t in section b when the clock starts at logical low or zero, the signal in section d is already at logical high, thus, the error signal begins at an earlier time than the associated data packet, and also, in section b, when clock goes from logical high and back to logical low, the error signal of section d is still at logical high, thus, the error signal ends at a later time than the associated data packet). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita, Boyce and Komatsu, as a whole, for efficiently encode and decode image data, while maintaining high image quality and minimizing erroneous data output.

Regarding claim 12, Yamashita discloses further comprising a transport bus, the data packets being forwarded to subsequent processing stages via the transport bus (col.6, ln.54-59, element 24 receives the first error signal produced by element 23 of fig.2, in that the data must be transported by a transport bus or any bus that permits the transmission of data for transmitting data).

Regarding claim 13, Yamashita discloses the transport bus (col.6, ln.54-59, element 24 receives the first error signal produced by element 23 of fig.2, in that the data must be transported by a transport bus or any bus that permits the transmission of data for transmitting data). Yamashita does not the second error signal. However, Boyce teaches the forwarding of the second error signal and with the data packets

Art Unit: 2621

associated with the second error signal (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, after the output of the Reed-Solomon decoder 506, ie. first error signal, and the synchronization data that is included when decoding MPEG header data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Regarding claim 14, Yamashita does not disclose wherein the data packets are forwarded as a series of discrete spaced apart frames, the second error signal being adapted to indicate an error in a defective data packet by having a duration that spans the frame of the defective data packet. However, Boyce teaches generating the second error signal as a series of discrete frames, each frame having a duration greater than an associated data packet (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, to indicate defective packetized data, and after the output of the Reed-Solomon decoder 506, ie. first error signal, and col.6, ln.12-35, the series of discrete frames whereby each frame has a duration greater or larger than the associated packetized data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Regarding claim 15, Yamashita does not disclose wherein the second error signal assumes a logical low state when no error is present in a data packet. However, Boyce discloses that the second error signal is in low logical state when errors are not detected (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, after the output of the Reed-Solomon decoder 506, ie. first error signal, and if there is no error detected within the sequence codes, then the second error signal is in low logical status). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Regarding claim 16, Yamashita discloses wherein the forward error detecting and correcting decoder is a Reed-Solomon decoder (col.6, ln.49-53 and fig.2, element 23 is a forward error detection unit, ie. Reed-Solomon decoder, that generates a first error signal in response to unscrambled, indecipherable data received by the decoder).

Regarding claim 17, Yamashita discloses wherein the transport processor is implemented as a microprocessor (col.6, ln.54-59, element 24 receives the first error signal produced by element 23 of fig.2).

Regarding claim 18, Yamashita discloses a method for processing a received signal containing an image representative datastream containing data packets, a packet error signal generating method (col.6, ln.11-14 and fig.2 is an apparatus for processing a received video datastream) comprising the steps of:

demodulating the received signal to produce a demodulated signal (fig.2, element 20 and col.6, ln.15-18);

error detecting the demodulated signal to produce a first error signal (col.6, ln.49-53 and fig.2, element 23 is a forward error detection unit, ie. Reed-Solomon decoder, that generates a first error signal in response to unscrambled, indecipherable data received by the decoder);

forwarding the first error signal to a transport processor (col.6, ln.49-53 and fig.2, element 23 is a forward error detection unit, ie. Reed-Solomon decoder, that generates a first error signal in response to unscrambled, indecipherable data received by the decoder); and

forwarding a synchronization signal to the transport processor, thereby associating the first error signal with a particular data packet (col.5, ln.38-45, frame synchronization pattern is within the system data of the received signal for permitting the synchronization of the video and audio data at the decoding end).

Yamashita does not specifically disclose generating a second error signal in response to the synchronization signal being received by the transport processor, the second error signal beginning at an earlier time and ending at a later time than the particular packet. However, Boyce teaches generating the second error signal in response to the synchronization signal being received by the transport processor (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, after the output of the Reed-Solomon decoder 506, ie. first error signal, and the synchronization data that is included when

Art Unit: 2621

decoding MPEG header data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Yamashita and Boyce do not disclose wherein each discrete second error signal frame is started before an associated data packet, and each discrete second error signal frame is stopped after an associated data packet ends, and the second error signal beginning at an earlier time and ending at a later time than the particular packet. However, Komatsu teaches wherein the second error signal begins at an earlier time than an associated data packet, and wherein the second error signal ends at a later time than the associated data packet (fig.12, note after time t, the section d shows that the phase error is at logical high or at, and note that after time t in section b when the clock starts at logical low or zero, the signal in section d is already at logical high, thus, the error signal begins at an earlier time than the associated data packet, and also, in section b, when clock goes from logical high and back to logical low, the error signal of section d is still at logical high, thus, the error signal ends at a later time than the associated data packet), and the second error signal beginning at an earlier time and ending at a later time than the particular packet (fig.12, note after time t, the section d shows that the phase error is at logical high or at, and note that after time t in section b when the clock starts at logical low or zero, the signal in section d is already at logical high, thus, the error signal begins at an earlier time than the associated data packet, and also, in section b, when clock goes from logical high and back to logical low, the

Art Unit: 2621

error signal of section d is still at logical high, thus, the error signal ends at a later time than the associated data packet). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita, Boyce and Komatsu, as a whole, for efficiently encode and decode image data, while maintaining high image quality and minimizing erroneous data output.

Regarding claim 19, Yamashita does not disclose further comprising the step of generating the second error signal as a series of discrete frames, each frame having a duration greater than an associated data packet. However, Boyce teaches generating the second error signal as a series of discrete frames, each frame having a duration greater than an associated data packet (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, after the output of the Reed-Solomon decoder 506, ie. first error signal, and col.6, ln.12-35, the series of discrete frames whereby each frame has a duration greater or larger than the associated packetized data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Regarding claim 21, Yamashita discloses wherein the error detecting step comprises Reed-Solomon error detection and correction (col.6, ln.49-53 and fig.2, element 23 is a forward error detection unit, ie. Reed-Solomon decoder, that generates a first error signal in response to unscrambled, indecipherable data received by the decoder).

Regarding claim 22, Yamashita discloses an apparatus for processing a received signal containing a datastream (col.6, ln.11-14 and fig.2 is an apparatus for processing a received datastream), comprising:

a signal decoder, the signal decoder generating a first error signal in response to indecipherable data received by the decoder (col.6, ln.49-53 and fig.2, element 23 is a Reed-Solomon decoder that generates a first error signal in response to unscrambled, indecipherable data received by the decoder); and

a transport processor, the transport processor receiving the first error signal, (col.6, ln.54-59, element 24 receives the first error signal produced by element 23 of fig.2).

Yamashita does not specifically disclose the transport processor generating a second error signal after receiving the first error signal, wherein the second error signal is formed as a series of logical high frames, each logical high frame being associated with a data packet. However, Boyce teaches generating the second error signal after receiving the first error signal (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, after the output of the Reed-Solomon decoder 506, ie. first error signal) and wherein the second error signal is formed as a series of logical high frames, each logical high frame being associated with a data packet (col.13, ln.1-7 and fig.5, element 507 generates the HP data stream that includes sequence error codes, ie. second error signal, in that the logical high frame represents a non-zero or high value that is associated with the data packet). Therefore, it would have been obvious to one of ordinary skill in the art to

Art Unit: 2621

combine the teachings of Yamashita and Boyce, as a whole, for robustly producing high image quality for display with little packet loss that has low overhead and low delay (Boyce's col.3, ln.56-61).

Yamashita and Boyce do not specifically disclose wherein each logical high frame of the second error signal begins at an earlier time than the data packet associated with the logical high frame, and wherein each logical high frame of the second error signal ends at a later time than the data packet associated with the logical high frame. However, Komatsu teaches that the error signal begins at an earlier time than the data packet associated with the logical high frame and each logical high frame of the second error signal ends at a later time than the data packet associated with the logical high frame (fig.12, note after time t, the section d shows that the phase error is at logical high or at, and note that after time t in section b when the clock starts at logical low or zero, the signal in section d is already at logical high, thus, the error signal begins at an earlier time than the data packet associated with the logical high frame, and also, in section b, when clock goes from logical high and back to logical low, the error signal of section d is still at logical high, thus, the error signal ends at a later time than the data packet associated with the logical high frame). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Yamashita, Boyce and Komatsu, as a whole, for efficiently encode and decode image data, while maintaining high image quality and minimizing erroneous data output.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 2621

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Allen Wong
Primary Examiner
Art Unit 2621

/Allen Wong/
Primary Examiner, Art Unit 2621
11/20/09